

U.S. DEPARTMENT OF HOMELAND SECURITY

Science and Technology

FACT SHEET

BIOWATCH

Early Detection, Early Response

Early detection and response to a bioterrorism event are crucial for saving lives and mitigating the consequences of an attack. The U.S. Department of Homeland Security's (DHS) BioWatch initiative has been successfully operating in many of the nation's urban centers since early 2003. It is one of the important tools used by public health agencies to warn citizens against the presence of biological agents.

BioWatch Mission:

BioWatch is an early warning system that can rapidly detect trace amounts of biological materials in the air whether they are due to intentional release or due to minute quantities that may occur naturally in the environment. The system assists public health experts determine the presence and geographic extent of a biological agent release, allowing federal, state, and local officials to more quickly determine emergency response, medical care and consequence management needs.

Nationwide Network:

BioWatch operates nationwide, focusing on major urban centers. Routine air samples are collected on a daily basis or more frequently if necessary. To date, BioWatch has analyzed well over half a million samples. Specialized sampling devices developed by the Department have been placed at key locations nationwide that include many of the EPA Air Quality Monitoring Network sites in partnership with state, local and tribal environmental agencies. The specific site locations and other system details are closely held to avoid compromising the system.

Coordinating Federal Agencies:

BioWatch is a DHS initiative that funds, manages and provides policy oversight for this effort in partnership with federal, state and local agencies. Key partners are:

- Centers for Disease Control and Prevention, which provides technical expertise through its Laboratory Response Network on the laboratory analysis methods and serves as the liaison for laboratory analyses with state health departments.
- Environmental Protection Agency, which leads the field deployment of the network, and serves as primary liaison to state and local environmental monitoring agencies.
- Laboratories associated with the Department of Homeland Security, especially Los Alamos and Lawrence Livermore National Laboratories, which provide technical expertise in biological sampling systems, and training assistance to state and local agencies.

Federal Response:

In the event of a positive detection by the BioWatch system, DHS can as appropriate, dispatch several federal response assets to support the public health infrastructure of an impacted area. These include: the Strategic National Stockpile, the nation's pharmaceutical reserve of millions of doses of life-saving and life-sustaining medicines to be administered to populations exposed to natural or man-made biological or chemical threats; and the National Disaster Medical System, composed of teams of professional medical personnel to be deployed to support local public health officials in the event of a national emergency.

The U.S. Department of Homeland Security's Science and Technology division serves as the primary research and development arm of the Department, utilizing our nation's scientific and technological resources to provide federal, state and local officials with the technology and capabilities to protect the homeland.

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